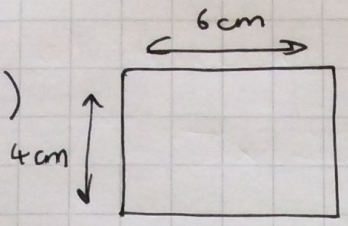
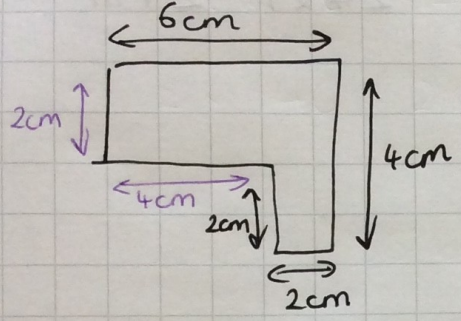
2. a)



Perimeter $= 6+6+4+4 = 20\text{cm}$

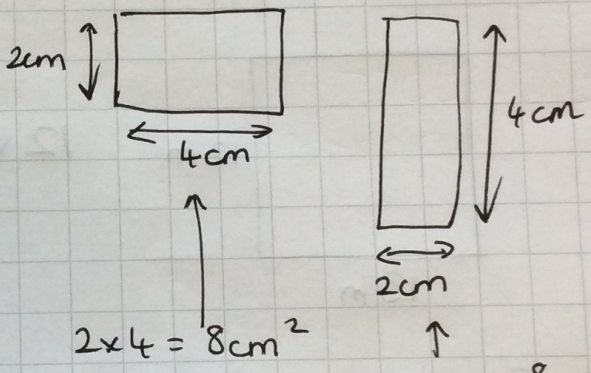
Area $= 6 \times 4 = 24\ \text{cm}^2$

b)



Perimeter
$= 6+4+2+2+4+2$
$= 20\text{cm}$

I'm going to split this into 2 pieces to check area.



$2 \times 4 = 8\text{cm}^2$

$4 \times 2 = 8\text{cm}^2$

$8+8 = 16$ so area $= 16\text{cm}^2$.

3. a) To work out the length of the unknown side:

$? \times 8 = 32$ so $? = 4$ cm

b) $8 + 8 + ? + ? = 40$

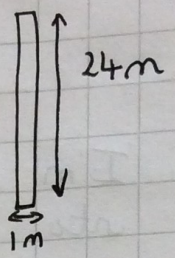
$? + ? = 24$ so $? = 12$cm.

c) This is a square so all 4 sides must be the same length.

$36 \div 4 = 9$ so each side is 9m.

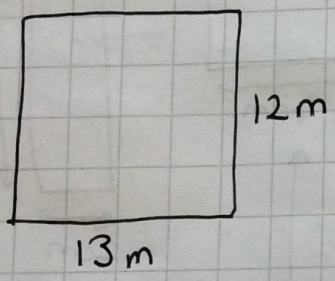
7. 50m.

b) Smallest area:



$24 \times 1 = 24 m^2$.

c)



$12 \times 13 = 156 m^2$

For the greatest area, I need the shape closest to a square.

I wonder - if I actually made a square, each side would be 12.5m.

$12.5 \times 12.5 = 156.25 m^2$.

But I'm not sure if we are allowed decimals!